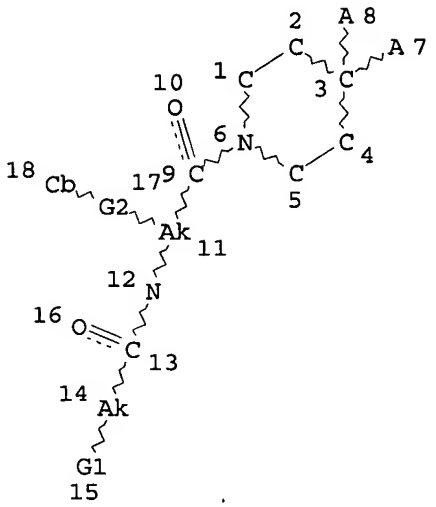
=> d l1
L1 HAS NO ANSWERS
L1 STR



VAR G1=N/HY
REP G2=(0-3) CH
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC 1
NUMBER OF NODES IS 18

STEREO ATTRIBUTES: NONE

=> s l1 ful
FULL SEARCH INITIATED 13:01:18 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 201156 TO ITERATE

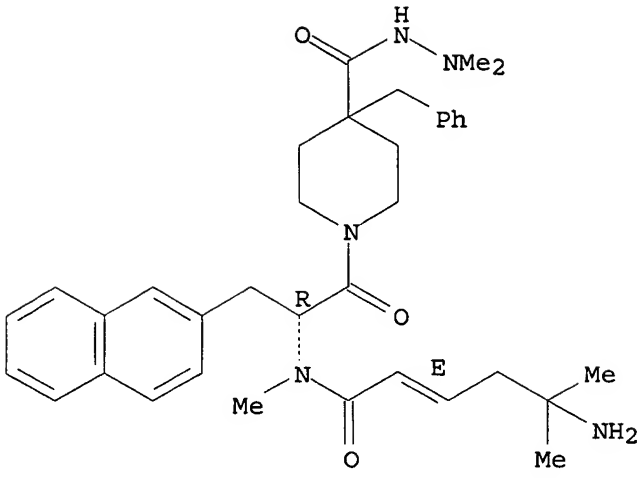
100.0% PROCESSED 201156 ITERATIONS 11 ANSWERS
SEARCH TIME: 00.00.10

L3 11 SEA SSS FUL L1

=> d scan

L3 11 ANSWERS REGISTRY COPYRIGHT 2003 ACS
IN 4-Piperidinecarboxylic acid, 1-[(2R)-2-[[(2E)-5-amino-5-methyl-1-oxo-2-hexenyl]methylamino]-3-(2-naphthalenyl)-1-oxopropyl]-4-(phenylmethyl)-, 2,2-dimethylhydrazide (9CI)
MF C36 H47 N5 O3

Absolute stereochemistry.
Double bond geometry as shown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> fil caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	150.15	150.36

FILE 'CAPLUS' ENTERED AT 13:01:53 ON 21 APR 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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FILE COVERS 1907 - 21 Apr 2003 VOL 138 ISS 17
FILE LAST UPDATED: 20 Apr 2003 (20030420/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l3
L4 2 L3

=> d bib abs hitstr 1-2

L4 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2003 ACS
AN 2002:695975 CAPLUS
DN 137:232913
TI Preparation of peptides for pharmaceutical use as modulators of melanocortin receptors

IN Yu, Guixue; Macor, John; Herpin, Timothy; Lawrence, R. Michael; Morton, George C.; Ruel, Rejean; Poindexter, Graham S.; Ruediger, Edward H.; Thibault, Carl

PA Bristol-Myers Squibb Company, USA

SO PCT Int. Appl., 107 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 3

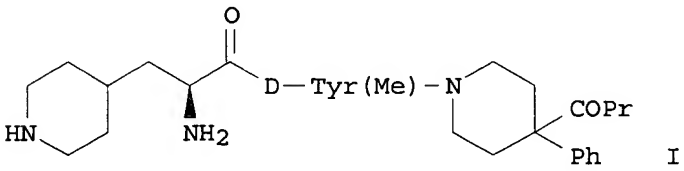
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002070511	A1	20020912	WO 2002-US6479	20020302

PI
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI US 2001-273206P P 20010302
US 2001-273291P P 20010302

OS MARPAT 137:232913

GI



I

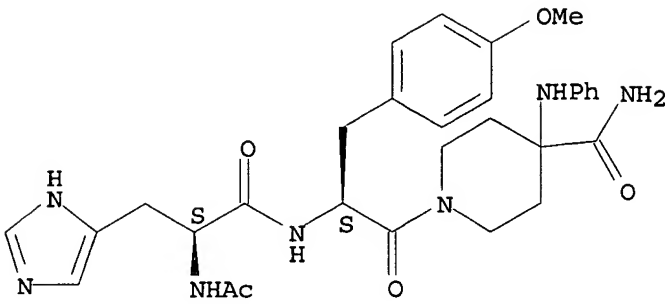
AB Compds. W-(CR6R7)yCH(G)(CR4R5)xCO-X(R1)CHR2(CHR3)r(CH2)sCO-E [X = N or CH; R1, R3 = H or alkyl; R2 = H, aryl, cycloalkyl, heteroaryl, heterocyclyl, (un)substituted alkyl or alkenyl; R1 together with R2 or R3 or R2 together with R3 form mono- or bicyclic aryl, cycloalkyl, heteroaryl, or heterocyclyl; E = (un)substituted pyrrolidino, piperidino, hexahydro-1-azepinyl, 1-piperazinyl, cyclopentyl, cyclohexyl, cycloheptyl, amino, (cyclo)alkylamino; R4-R6 = H, (un)substituted alkyl, amino, alkylamino, hydroxy, alkoxy, aryl, cycloalkyl, heteroaryl, or heterocyclyl; or CR4R5 or C6R7 is a spirocycloalkyl ring; r, s = 0 or 1; x = 0-4; y = 0-2; G = alkenyl, arylalkenyl, hydroxy, heteroaryl, cyano, functionalized alkyl or alkenyl, etc.; W = amino, alkylamino, hydroxy, alkoxy, carbamoyl, amidino, cycloalkyl, heteroaryl, heterocyclyl, etc.] were prepd. as modulators of melanocortin receptors, particularly MC-1R and MC-4R. Thus, peptide I was prepd. by a soln.-phase peptide coupling/deprotection scheme.

IT **457903-95-6P 457904-39-1P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of peptides for pharmaceutical use as modulators of melanocortin receptors)

RN 457903-95-6 CAPLUS

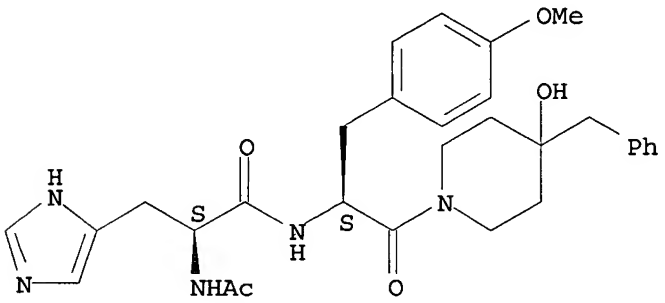
CN 4-Piperidinecarboxamide, 1-[(2S)-2-[[(2S)-2-(acetylamino)-3-(1H-imidazol-4-yl)-1-oxopropyl]amino]-3-(4-methoxyphenyl)-1-oxopropyl]-4-(phenylamino)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 457904-39-1 CAPLUS
CN 1H-Imidazole-4-propanamide, .alpha.-(acetylamino)-N-[(1S)-2-[4-hydroxy-4-(phenylmethyl)-1-piperidinyl]-1-[(4-methoxyphenyl)methyl]-2-oxoethyl]-, (.alpha.S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

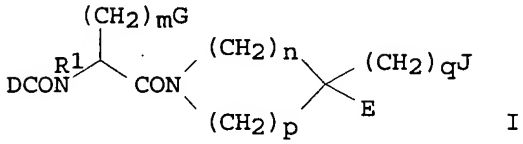
L4 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2003 ACS
AN 1999:736657 CAPLUS
DN 131:336948
TI Preparation of piperidine derivatives with growth hormone releasing properties
IN Hansen, Thomas Kruse; Ankersen, Michael
PA Novo Nordisk A/S, Den.
SO PCT Int. Appl., 87 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9958501	A1	19991118	WO 1999-DK260	19990510
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	US 6303620	B1	20011016	US 1999-306151	19990506

	CA 2329881	AA	19991118	CA 1999-2329881	19990510
	AU 9937010	A1	19991129	AU 1999-37010	19990510
	BR 9910329	A	20010130	BR 1999-10329	19990510
	EP 1077941	A1	20010228	EP 1999-919125	19990510
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, SI, LT, FI, RO				
	NO 2000005668	A	20010110	NO 2000-5668	20001110
PRAI	DK 1998-636	A	19980511		
	DK 1998-875	A	19980701		
	US 1998-85886P	P	19980518		
	US 1998-91947P	P	19980518		
	WO 1999-DK260	W	19990510		

OS MARPAT 131:336948

GI



I

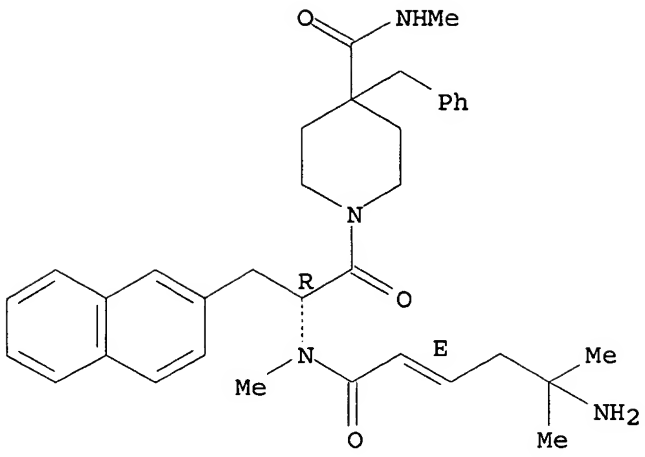
AB Disubstituted piperidine compds. I [R1 = H, alkyl; m, q = 0-3; n, p = 0-5; D = R2NH(CR3R4)e(CH2)fM(CHR5)g(CH2)h; G = O(CH2)kR8, substituted heterocyclyl or Ph or naphthyl; J = O(CH2)lR13, substituted heterocyclyl or Ph or naphthyl; E = CONR18, CO2R19, etc.], with growth hormone releasing properties, were prepd. E.g., 1-{(2R)-2-[N-((2E)-5-amino-5-methylhex-2-enoyl)-N-methylamino]-3-(2-naphthyl)propionyl}-4-benzylpiperidine-4-carboxylic acid methylamide was prepd.

IT **249920-94-3P 249920-95-4P 249920-96-5P**
249920-97-6P 249921-02-6P 249921-03-7P
249921-04-8P 249921-05-9P 249921-09-3P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of piperidine derivs. with growth hormone releasing properties)

RN 249920-94-3 CAPLUS

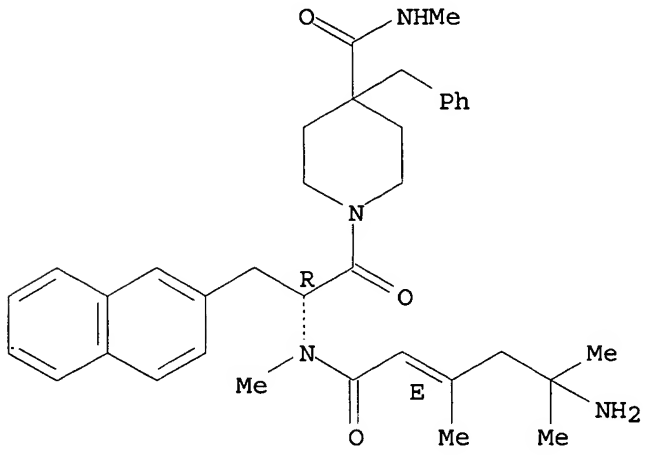
CN 4-Piperidinecarboxamide, 1-[(2R)-2-[[(2E)-5-amino-5-methyl-1-oxo-2-hexenyl]methylamino]-3-(2-naphthalenyl)-1-oxopropyl]-N-methyl-4-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



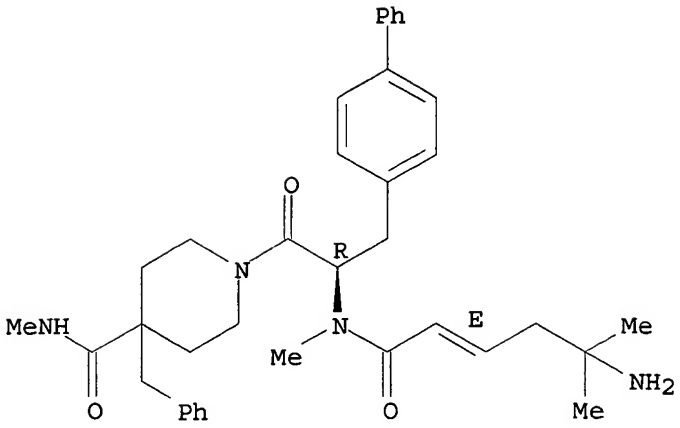
RN 249920-95-4 CAPLUS
CN 4-Piperidinecarboxamide, 1-[(2R)-2-[[(2E)-5-amino-3,5-dimethyl-1-oxo-2-hexenyl]methylamino]-3-(2-naphthalenyl)-1-oxopropyl]-N-methyl-4-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



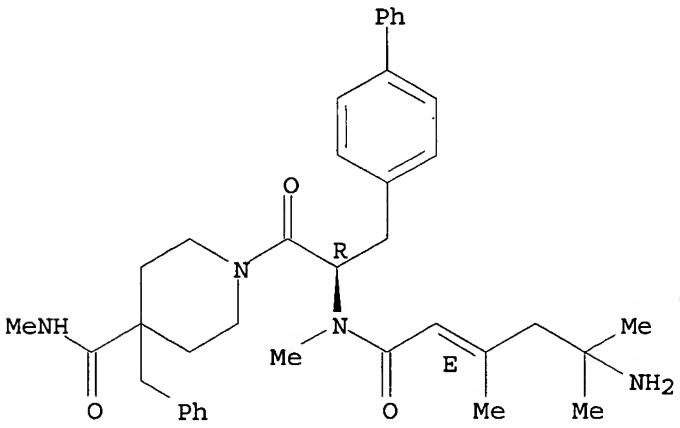
RN 249920-96-5 CAPLUS
CN 4-Piperidinecarboxamide, 1-[(2R)-2-[[(2E)-5-amino-5-methyl-1-oxo-2-hexenyl]methylamino]-3-[1,1'-biphenyl]-4-yl-1-oxopropyl]-N-methyl-4-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



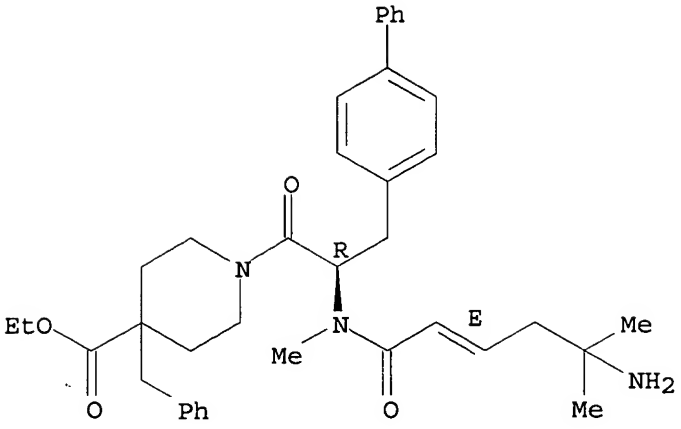
RN 249920-97-6 CAPLUS
CN 4-Piperidinecarboxamide, 1-[(2R)-2-[[(2E)-5-amino-3,5-dimethyl-1-oxo-2-hexenyl]methylamino]-3-[1,1'-biphenyl]-4-yl-1-oxopropyl]-N-methyl-4-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



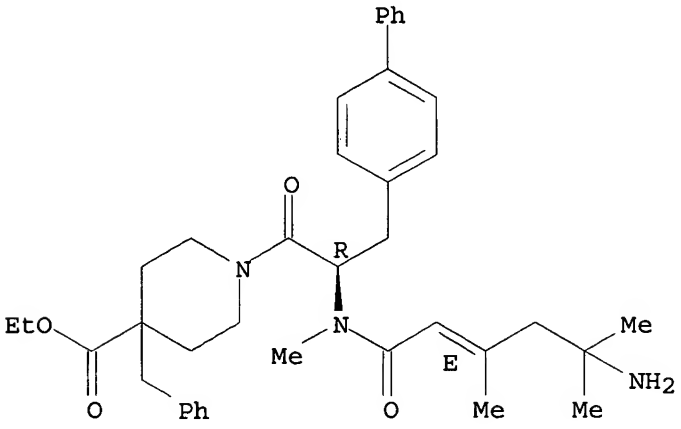
RN 249921-02-6 CAPLUS
CN 4-Piperidinecarboxylic acid, 1-[(2R)-2-[[(2E)-5-amino-5-methyl-1-oxo-2-hexenyl]methylamino]-3-[1,1'-biphenyl]-4-yl-1-oxopropyl]-4-(phenylmethyl)-, ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



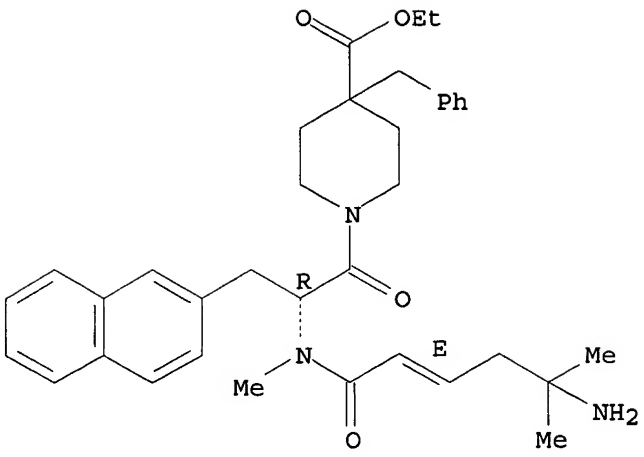
RN 249921-03-7 CAPLUS
CN 4-Piperidinecarboxylic acid, 1-[(2R)-2-[[(2E)-5-amino-3,5-dimethyl-1-oxo-2-hexenyl]methylamino]-3-[1,1'-biphenyl]-4-yl-1-oxopropyl]-4-(phenylmethyl)-, ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



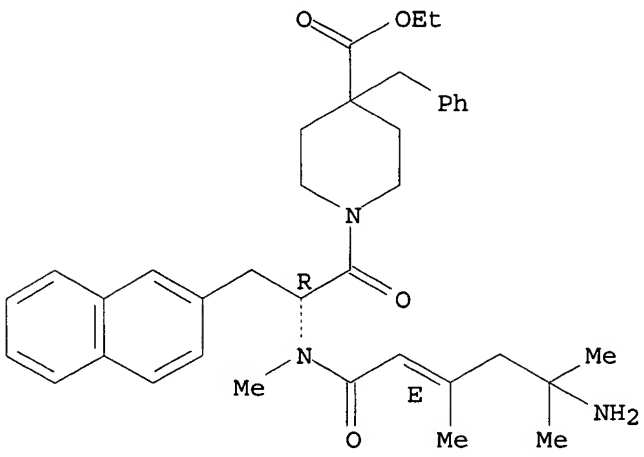
RN 249921-04-8 CAPLUS
CN 4-Piperidinecarboxylic acid, 1-[(2R)-2-[[(2E)-5-amino-5-methyl-1-oxo-2-hexenyl]methylamino]-3-(2-naphthalenyl)-1-oxopropyl]-4-(phenylmethyl)-, ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



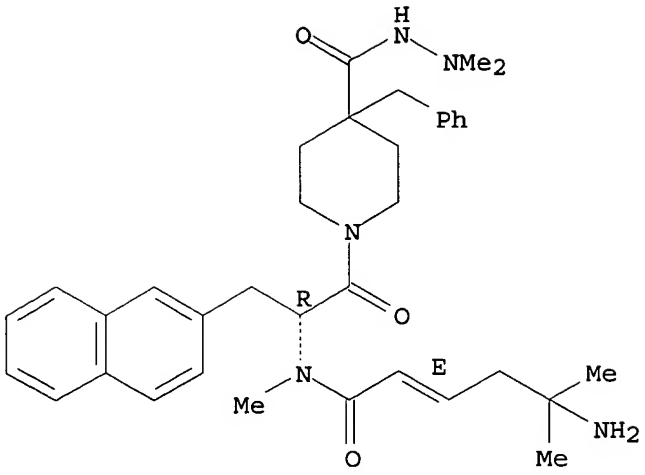
RN 249921-05-9 CAPLUS
CN 4-Piperidinecarboxylic acid, 1-[(2R)-2-[[(2E)-5-amino-3,5-dimethyl-1-oxo-2-hexenyl]methylamino]-3-(2-naphthalenyl)-1-oxopropyl]-4-(phenylmethyl)-, ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 249921-09-3 CAPLUS
CN 4-Piperidinecarboxylic acid, 1-[(2R)-2-[[(2E)-5-amino-5-methyl-1-oxo-2-hexenyl]methylamino]-3-(2-naphthalenyl)-1-oxopropyl]-4-(phenylmethyl)-, 2,2-dimethylhydrazide (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
=> s melanocortin?
L5        1281 MELANOCORTIN?

=> s l5(l)piperidin?
          80708 PIPERIDIN?
L6           24 L5(L)PIPERIDIN?

=> s l6 and triazo?
          36601 TRIAZO?
L7            5 L6 AND TRIAZO?

=> d bib abs 1-5

L7   ANSWER 1 OF 5  CAPLUS  COPYRIGHT 2003 ACS
AN   2002:822284  CAPLUS
DN   138:131392
TI   Activation of melanocortin MC4 receptors increases erectile activity in
     rats ex copula
AU   Martin, William J.; McGowan, Erin; Cashen, Doreen E.; Gantert, Liza T.;
     Drisko, Jennifer E.; Hom, Gary J.; Nargund, Ravi; Sebhat, Iyassu; Howard,
     Andrew D.; Van der Ploeg, Lex H. T.; MacIntyre, D. Euan
CS   Department of Pharmacology, Merck Research Laboratories, Rahway, NJ,
     07065, USA
SO   European Journal of Pharmacology (2002), 454(1), 71-79
     CODEN: EJPHAZ; ISSN: 0014-2999
PB   Elsevier Science B.V.
DT   Journal
LA   English
AB   Melanocortin peptide agonists, .alpha.-MSH and melanotan-II,
     stimulate erectile activity in a variety of species, including man.  Since
     neither peptide discriminates amongst melanocortin receptors, it
     is not clear which subtype mediates these pro-erectile effects.  Here, the
     authors present data that melanocortin-induced erectogenesis is
     mediated by melanocortin MC4 receptors.  Systemic administration
     of a melanocortin MC4 receptor agonist (N-[(3R)-1,2,3,4-
     tetrahydroisoquinolinium-3-ylcarbonyl]-(1R)-1-(4-chlorobenzyl)-2-[4-
     cyclohexyl-4-(1H-1,2,4-triazol-1-yl methyl)piperidin
     -1-yl]-2-oxoethylamine; THIQ) with high selectivity over other
     melanocortin receptors enhanced intracavernosal pressure and
     stimulated erectile activity in rats ex copula.  THIQ dose-dependently
     (1-5 mg/kg, i.v.) increased the total no. of erections, to an extent
     comparable or greater than that produced by apomorphine (0.025 mg/kg,
     s.c.).  Central administration of THIQ (20 .mu.g, intracerebroventricular
     (i.c.v.)) increased the no. of reflexive penile erections; whereas
     administration of both a nonselective endogenous melanocortin
     MC4 receptor antagonist (agouti-related protein (AgRP), 5.5. .mu.g,
     i.c.v.) and a melanocortin MC4 receptor preferring antagonist
     (MPB10, 1 mg/kg, i.v.) blocked THIQ-induced erectogenesis.  These
     pro-erectile effects were also attenuated by systemic or central
     administration of an oxytocin antagonist (L-368899, 1 mg/kg, i.v.).  Thus,
     melanocortin MC4 receptor activation is sufficient for
     erectogenesis and these effects may involve oxytocinergic pathways.
RE.CNT  29    THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD .
              ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7   ANSWER 2 OF 5  CAPLUS  COPYRIGHT 2003 ACS
AN   2002:699493  CAPLUS
DN   137:362928
TI   Design and pharmacology of N-[(3R)-1,2,3,4-tetrahydroisoquinolinium-
     3-ylcarbonyl]-(1R)-1-(4-chlorobenzyl)- 2-[4-cyclohexyl-4-(1H-1,2,4-
     triazol- 1-ylmethyl)piperidin-1-yl]-2-oxoethylamine (1),
     a potent, selective, melanocortin subtype-4 receptor agonist
```

AU Sebhat, Iyassu K.; Martin, William J.; Ye, Zhixiong; Barakat, Khaled; Mosley, Ralph T.; Johnston, David B. R.; Bakshi, Raman; Palucki, Brenda; Weinberg, David H.; MacNeil, Tanya; Kalyani, Rubana N.; Tang, Rui; Stearns, Ralph A.; Miller, Randy R.; Tamvakopoulos, Constantin; Strack, Alison M.; McGowan, Erin; Cashen, Doreen E.; Drisko, Jennifer E.; Hom, Gary J.; Howard, Andrew D.; MacIntyre, D. Euan; van der Ploeg, Lex H. T.; Patchett, Arthur A.; Nargund, Ravi P.

CS Departments of Chemistry, Pharmacology, Obesity Research, and Drug Metabolism, Merck Co. Inc., Rahway, NJ, 07065-0900, USA

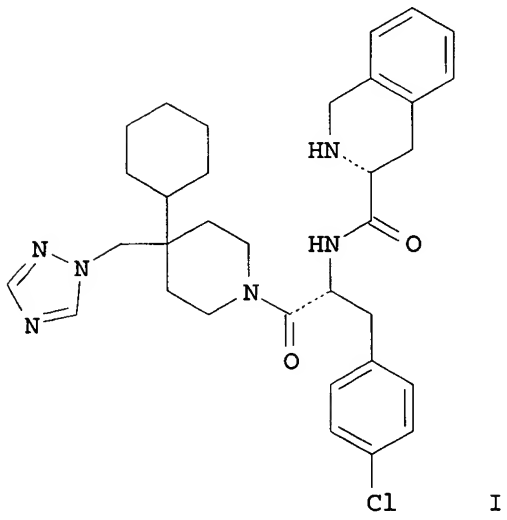
SO Journal of Medicinal Chemistry (2002), 45(21), 4589-4593
CODEN: JMCMAR; ISSN: 0022-2623

PB American Chemical Society

DT Journal

LA English

GI



I

AB Synthetic and natural peptides that act as nonselective melanocortin receptor agonists have been found to be anorexigenic and to stimulate erectile activity. We report the design and development of (I), a potent, selective (1184-fold vs. MC3R, 350-fold vs. MC5R), small-mol. agonist of the MC4 receptor. Pharmacol. testing confirms the food intake lowering effects of MC4R agonism and suggests another role for the receptor in the stimulation of erectile activity.

RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2003 ACS

AN 2002:675992 CAPLUS

DN 137:216873

TI Acylated **piperidine** derivatives, specifically 1-(pyrrolidinylcarbonyl)**piperidines**, 1-(**piperidinylcarbonyl**)**piperidines**, and analogs, as **melanocortin**-4 receptor agonists, and their pharmaceutical compositions and therapeutic uses

IN Goulet, Mark T.; Nargund, Ravi P.; Sebhat, Iyassu K.; Ujjainwalla, Feroze; Walsh, Thomas F.; Warner, Daniel; Young, Jonathan R.; Bakshi, Raman K.

PA Merck & Co., Inc., USA; Ye, Zhixiong

SO PCT Int. Appl., 138 pp.
CODEN: PIXXD2

DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002068387	A2	20020906	WO 2002-US5623	20020225
	WO 2002068387	A3	20030220		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI US 2001-272258P P 20010228
US 2001-300572P P 20010622
OS MARPAT 137:216873
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Certain novel 4-substituted N-acylated **piperidine** derivs., specifically I, are agonists of the human **melanocortin** receptor(s) and, in particular, are selective agonists of the human **melanocortin**-4 receptor (MC-4R) [wherein: p = 1 or 2; q = 0, 1, or 2; n = 0, 1, or 2; R1 = H, amidino, alkyliminoyl, (un)substituted alkyl, (CH2)n-G1 [G1 = (un)substituted cycloalkyl, Ph, naphthyl, or heteroaryl]; R2 = (un)substituted Ph, naphthyl, or heteroaryl; X = alkyl, (CH2)n-G2 [G2 = (un)substituted cycloalkyl, Ph, naphthyl, heteroaryl, heterocyclyl, cyano, CONH2, CO2H, OH, NH2, and various derivs.]; Y = (un)substituted alkyl, alkenyl, (CH2)n-G3 [G3 = (un)substituted cycloalkyl, Ph, naphthyl, heteroaryl, or heterocyclyl]; including pharmaceutically acceptable salts]. They are therefore useful for the treatment, control, or prevention of diseases and disorders responsive to the activation of MC-4R, such as obesity, diabetes, sexual dysfunction, including erectile dysfunction and female sexual dysfunction. Approx. 200 invention compds. I and approx. 80 intermediates were prepd. For instance, amidation of (.+-.)-trans-1-(tert-butoxycarbonyl)-3-(4-fluorophenyl)**piperidine** -4-carboxylic acid with 4-cyclohexyl-4-[(4,4-dimethyl-2-oxo-1,3-oxazolidin-3-yl)methyl]**piperidine** HCl, followed by N-deprotection with removal of BOC using HCl, and reductive N-methylation using paraformaldehyde and NaBH3CN, gave title compd. (.+-.)-trans-II, isolated as the trifluoroacetate salt. Representative compds. I bound to cloned human MC-4R in vitro with IC50 values generally below 2 .mu.M, and also acted as agonists toward cloned human MCR in a functional assay with EC50 values less than 1 .mu.M.

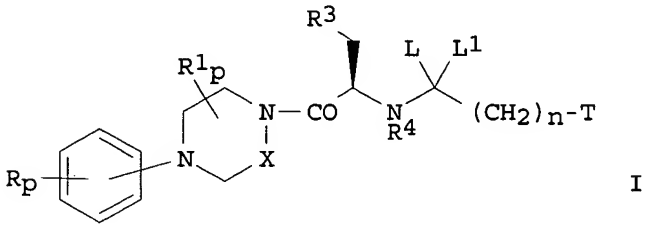
L7 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2003 ACS
AN 2002:575066 CAPLUS
DN 137:140777
TI Preparation of piperazinyl and hexahydro-1,4-diazepinyl amino acid derivatives as melanocortin receptor agonists
IN Biggers, Christopher Kelly; Briner, Karin; Doecke, Christopher William; Fisher, Matthew Joseph; Hertel, Larry Wayne; Mancoso, Vincent; Martinelli, Michael John; Mayer, John Philip; Ornstein, Paul Leslie; Richardson, Timothy Ivo; Shah, Jikesh Arvind; Shi, Qing; Wu, Zhipei; Xie, Chaoyu
PA Eli Lilly and Company, USA
SO PCT Int. Appl., 356 pp.

CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002059108	A1	20020801	WO 2002-US517	20020123

PI
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI US 2001-263471P P 20010123
OS MARPAT 137:140777
GI



I

AB The invention relates to melanocortin receptor (MC-R) agonists I [X = CH2 or CH2CH2; LL1 = H2 or oxo; T = isoquinolinyl or tetrahydro deriv., isoindolinyl, or piperazinyl; n = 0-8; R = H, OH, CN, NO2, halo, alkyl, acyl, etc.; R1 = H, alkyl, alkylcarbamoyl, (D)phenyl, (D)cycloalkyl, or oxo (unless amide is formed); p = 0-5; R3 = (un)substituted aryl or thienyl; R4 = H, alkyl, acyl, cycloalkyl, or alkoxyalkyl], or their pharmaceutically-acceptable salts or stereoisomers, which are useful in the treatment of obesity, diabetes, and male and/or female sexual dysfunction. Compds. I comprise three domains, i.e., a piperazinyl or hexahydro-1,4-diazepinyl fragment, an amino acid, and a radical CLL1(CH2)n-T. Thus, 1-(D-Tic-4-Cl-D-Phe)-4-[2-(methanesulfonylamino)phenyl]piperazine (Tic = 1,2,3,4-tetrahydroisoquinoline-3-carbonyl; claimed compd.) was prepd. via acylation of the piperazine moiety.

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2003 ACS
AN 2000:880962 CAPLUS
DN 134:42445
TI Preparation of **piperidine** amino acid derivatives as **melanocortin**-4 receptor agonists
IN Bakshi, Raman K.; Barakat, Khaled J.; Nargund, Ravi P.; Palucki, Brenda L.; Patchett, Arthur A.; Sebhat, Iyassu; Ye, Zhixiong; Van, Der Ploeg Leonardus H. T.
PA Merck & Co., Inc., USA; Van Der Ploeg, Leonardus H. T.
SO PCT Int. Appl., 124 pp.
CODEN: PIXXD2
DT Patent
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000074679	A1	20001214	WO 2000-US14930	20000531
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	EP 1187614	A1	20020320	EP 2000-937961	20000531
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2003505435	T2	20030212	JP 2001-512328	20000531
	US 6350760	B1	20020226	US 2000-585111	20000601
	US 2002137664	A1	20020926	US 2001-990499	20011121
PRAI	US 1999-137477P	P	19990604		
	US 1999-169209P	P	19991202		
	WO 2000-US14930	W	20000531		
	US 2000-585111	A3	20000601		

OS MARPAT 134:42445

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* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB **Piperidine** derivs. I [R2C2 = aryl, 5- or 6-membered heteroaryl or heterocyclyl, 5- to 7-membered carbocyclyl, which may be substituted; L = (CRb2)m, where Rb = H, alkyl, (CH2)n-cycloalkyl or -aryl; m = 0-2, n = 0-3; X, Y = (CH2)0-2; Ra = H, alkyl, (CHRb)n-cycloalkyl, -aryl, -heteroaryl, -O(CHRb)naryl, which may be substituted; Re = H, alkyl, (CH2)n-aryl, -cycloalkyl, -heteroaryl, which may be substituted, acyl, sulfonyl, etc.; R1 = H, alkyl, (CH2)n-cycloalkyl, -aryl, -heteroaryl, -heterocyclyl; R2 = any group given for R1, CN, (CH2)n-carboxamido, -carboxy, -acylamino, sulfonylamino, -amino, etc.] were prepd. as agonists of the human **melanocortin** receptors, in particular, the human **melanocortin**-4 receptor (MC-4R). They are therefore useful for the treatment, control, or prevention of diseases and disorders responsive to the activation of MC-4R, such as obesity, diabetes, sexual dysfunction, including erectile dysfunction and female sexual dysfunction. Thus, II trifluoroacetate, prepd. by coupling of Et 1-(D-4-chlorophenylalanyl)-4-cyclohexyl-4-[(1,2,4-**triazol**-1-yl)methyl]**piperidine** trifluoroacetate (prepn. given) with N-tert-butoxycarbonyl-1,2,3,4-tetrahydroisoquinoline-3-carboxylic acid (Boc-D-Tic), was > 2,200-fold, > 10,000-fold, and > 580-fold selective for the human MC-4R over human MC-1R, MC-2R, and MC-3R, resp.

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT